CLAIMS

What is claimed is:

1. A hard material insert for a tool that is configured in segments and has a planar, polycrystalline diamond layer (2) having a main cutting element (3) with at least segmental a radius R and an opposing, at least segmental linear contact edge (4) in the layer plane, wherein the minimal radius of curvature K is greater than R/20 in a transition zone (X, X') of the main cutting element (3) to the contact edge (4).

2. The hard material insert of claim 1, wherein a width W of the contact edge is a width in the range of R/2 to 2R relative to the radius R of an at least segmental circular PCD layer blank and at least part of the main cutting element (3).

3. The hard material insert of claim 2, wherein a height H measured perpendicular to the contact edge (4) is in a range of W/2 to 3W/2 relative to the width W of the contact edge.

4. The hard material insert of claim 3, wherein a scallop (7) is disposed in the contact edge (4) .

5. The hard material insert of claim 4, wherein the scallop (7) is situated in a central zone.

6. A process for manufacturing a hard material insert (1), wherein, in a first process step, a PCD layer blank (6) is produced and, in a second process step, at least one segmental hard material insert (1) is separated mosaic-like from the PCD layer blank (6), and in a further process step a transition zone (X, X') having a minimal curvature is produced.